***October 2, 2012***

**DRAFT**

**CHEVROLET BRANCH DETENTION BASIN PROJECT**
**REIMBURSEMENT AGREEMENT**

**BY AND BETWEEN**

**THE NORTHEAST OHIO REGIONAL SEWER DISTRICT**

**AND**

**THE CITY OF PARMA**

Exhibit "A"

This Agreement is made and entered into this _____ day of _____, 20___, by and between the Northeast Ohio Regional Sewer District ("District") acting pursuant to Resolution No. _____, adopted by the Board of Trustees of the District on _____, 20__ (Exhibit "A"), and the City of Parma ("Parma") acting pursuant to Ordinance No. _____, passed by the Council of the City of Parma on _____, 20___ (Exhibit "B").

WHEREAS, the District, through its General Engineering Services Agreement with URS, is performing a Chevrolet Branch Detention Basins Preliminary Engineering Study for the purpose of evaluating the local storm and sanitary sewers in the area around Chevrolet Boulevard and developing recommendations to reduce local flooding; and

WHEREAS, Parma is currently designing a detention basin for a development and additional flooding relief storage for the adjacent residential areas; and

WHEREAS, the parties are working toward a common goal to reduce flows to the Chevrolet Branch of Big Creek, and reduce flooding in the nearby neighborhoods (the "Project"); and

Whereas, the Cuyahoga County Department of Public Works ("County") is providing Issue 1 funding to Parma for the Project; and

WHEREAS, in accordance with the County's letter dated September 24, 2012 (Exhibit "C"), the County and Parma have agreed to use a portion of said funding to reimburse the District's costs associated with performing various tasks under the District's Agreement with URS, as follows: 1) Mainline Dye Testing – Rainfall Simulation of Public Property; and 2) Residential House Dye Testing – Rainfall Simulation of Private Property.

NOW, THEREFORE, for the reasons set forth above, and in consideration of the mutual promises contained in this Agreement, the District and Parma agree to the following:

## Article 1
## Obligations of the District

1.01 The District, through its General Engineering Services Agreement with URS, shall perform the following:

1.01.01 Mainline Dye Testing – Rainfall Simulation of Public Property – URS will conduct dyed water testing of public storm sewers in the Chevrolet Boulevard study area. Approximately 8800 linear feet of sanitary sewer will be investigated for leaks and cross connections by testing the storm sewers. Such work is further detailed under *Subtask 2B* of the document titled "ATTACHMENT A – GENERAL ENGINEERING SERVICES (GES) TASK ORDER NO. XX – Chevrolet Branch Detention Basins Preliminary Engineering Study", ("District Task Order"), which is attached hereto for reference as Exhibit "D."

1.01.02 Residential House Dye Testing – Rainfall Simulation of Private Property – URS will conduct dyed water testing of all residential houses in the Chevrolet Boulevard study area. Approximately 206 houses will be investigated for leaks and sources of infiltration and inflow. Such work is further detailed under *Subtask 2C* of the District Task Order.

1.02 The District will compensate URS for performance of the above-described work under its General Engineering Services Agreement, and will seek reimbursement for such work from Parma. Upon completion of the work, the District will provide an invoice to Parma with copies of the paid URS invoices documenting the description and date(s) of work performed, and method and amount of payment to URS.

## Article 2
## Obligations of Parma

2.01 Upon receipt of the District's invoice described in paragraph 1.02 above, Parma will forward said invoice, including URS's invoices, along with a copy of the final dye testing report, to the County for reimbursement to Parma. Upon Parma's receipt of reimbursement by the County, Parma shall forward reimbursement to the District in the amount of the actual invoice, but not to exceed One Hundred One Thousand Eight Hundred Sixty Eight and 30/100 Dollars ($101,868.30).

## Article 3
## Notifications

3.01 The Parties hereby designate the following individuals to serve as the primary points of contact under this Agreement:

**DISTRICT**
Victoria D. McCauley, P.E.
Stormwater Design Manager
Northeast Ohio Regional Sewer District
3900 Euclid Avenue
Cleveland, Ohio 44115
(216) 881-6600 ext. 6618
mccauleyv@neorsd.org

**PARMA**
Brian Higgins
Service Director
Parma City Hall
6611 Ridge Road
(440) 885-8184
bhiggins@cityofparma-oh.gov

## Article 4
## Counterpart Signatures

4.01 This Agreement may be executed in counterparts, each of which shall be deemed to be an original, but which counterparts when taken together shall constitute one Agreement.

## Article 5
## Governing Law

5.01 The terms and provisions of this Agreement shall be construed under and governed by the laws of Ohio (to which all Parties hereto consent to venue and jurisdiction).

## Article 6
## Disclaimer of Joint Venture

6.01 This Agreement is not intended to create a joint venture, partnership or agency relationship between the Parties, and such joint venture, partnership, or agency relationship is specifically hereby disclaimed.

## Article 7
## Authority to Execute

7.01 Each person executing this Agreement represents and warrants that it is duly authorized to execute this Agreement by the party on whose behalf it is so executing.

## Article 8
## Exhibits

The following exhibits are attached hereto and incorporated herein:

Exhibit "A" – District Resolution No. ___
Exhibit "B" – Parma Ordinance No. ___
Exhibit "C" – County's letter dated September 24, 2012
Exhibit "D" – District Task Order

The Parties hereto have executed and delivered this Agreement as of the date first above written.

**NORTHEAST OHIO REGIONAL SEWER DISTRICT**

By: _____
Julius Ciaccia
Executive Director

And: _____
Darnell Brown, President
Board of Trustees

**CITY OF PARMA**

By: _____
Brian Higgins
Director of Public Service

The legal form and correctness
of this instrument is approved.

**CITY OF PARMA**

_____
TIMOTHY G. DOBECK
Director of Law

Date: _____, 20____.

This Instrument Prepared By:
Katarina K. Waag
Assistant Director of Law
Northeast Ohio Regional Sewer District

# CUYAHOGA COUNTY
# DEPARTMENT of PUBLIC WORKS

September 24, 2012

Mr. Paul Deichmann, P.E.
City of Parma
6611 Ridge Road
Parma, OH 44129

Re: GM Basin Reimbursement for Dye Testing

Dear Mr. Deichmann,

A meeting was held at our office on August 20, 2012 with representatives of Parma, Northeast Ohio Regional Sewer District and the Public Works Department concerning a study of the GM Basin. Northeast Ohio Regional Sewer District will be performing the study utilizing their consultant URS to perform dye testing of the mainline and of residential homes simulating rainfall on the public and private property. The estimated cost of the testing is $101,868.30, to be split 50/50 between the Sanitary and the Storm fund. Per the meeting, funding is available.

Stan Kosilesky, of Public Works indicated that In order for the County to reimburse the City of Parma for the costs through the City's Sanitary and Storm accounts, per the Agreement, additional information needs to be submitted.

Upon completion of the work, please forward an invoice to the Public Works Office with copies of the paid invoices that document the date and method of payment. Also include the final report of the dye testing.

If you have any questions on this matter, please contact our Chief Sanitary Engineer, William Schneider at 216-443-8205.

Very truly yours,

Jamal Husani, P.E.
Chief Transportation/ Traffic Engineer

cc: Parma: Brian Higgins: Service Director, Hasmukh Patel, PE, Assistant City Engineer
Public Works: William Schneider, PE, Chief Sanitary Engineer, Edward Premen, Business Services Manager, Anastasia Gliha: Environmental Services Manager

**ATTACHMENT A**
**GENERAL ENGINEERING SERVICES (GES) TASK ORDER NO. XX**
**Chevrolet Branch Detention Basins Preliminary Engineering Study**

## Project Understanding

The District has completed previous stormwater and detention studies in partnership with Cleveland, Parma and ODOT. The recommendations included; the construction of two storage basins in Parma, the repair or replacement of approximately 8 culverts in Cleveland, the restoration of approximately 4,500 feet of the Chevy Branch stream channel, and the construction of a diversion pipe that would carry excess flows from Parma and Cleveland to the main branch of Big Creek in the City of Brooklyn. Using Ohio Department of Public Work's Issue 2 (now Issue 1) infrastructure improvement grant program funds, the City of Cleveland completed the culvert repair and stream restoration projects but did not construct the storage basins or diversion pipe. In the original design, the stormwater storage basins were located along Chevrolet Boulevard, approximately one-half mile south of Brookpark Road, in Parma on property now partially owned or controlled by a developer. The City of Parma is currently designing a detention basin design for a development and additional flooding relief storage for the adjacent residential areas. URS is being requested to provide a detailed study of the proposed basins including an evaluation of additional alternatives to reduce or minimize flooding in the areas as shown in the District scope of services dated January 24, 2012.

The goals of the District for the Chevrolet Branch Detention Basins Preliminary Engineering Study include but are not limited to the following:

a) Update existing hydraulic model of the Chevrolet Branch, focusing on the upstream portion of the watershed.
b) Add the local sanitary sewer system to the hydraulic model in the areas of Deborah and Gabriella Drives
c) Perform flow monitoring to calibrate existing models
d) Perform an Inflow and Infiltration (I/I) investigation of the local sewers in the residential flooding areas including mainline dye testing followed by residential dye testing. **These will be executed and invoiced only upon the approval of NEORSD.**
e) Evaluate the local storm and sanitary sewers in the area around Chevy Boulevard, and develop recommendations to reduce local flooding.
f) Evaluate alternatives for detention basins, including future operation of the basin currently owned by GM.
g) Develop preliminary design for basins to be built in Parma to reduce flows to the Chevy Branch of Big Creek, and reduce flooding in the nearby neighborhoods.

## Project Scope of Work

The scope of work for this project is described by the following tasks below:

1. Task 1 - Review Existing Information
2. Task 2 – Field Investigations
3. Task 3 - Update Existing Hydraulic SWMM Model
4. Task 4 - Alternatives Evaluation

5. Task 5 - Summary Report
6. Task 6 - Meetings

***Task 1: Review Existing Information***

URS will compile and review all existing relevant information including but not limited to the previous studies, stormwater models, plan information or record drawings, Neff & Associates drawings, reports and other available information provided by the District. Also, the existing SWMM model will be reviewed along with the tributary drainage areas to determine the current accuracy of the models.

The existing information and model conditions will be field verified in a site visit to review existing site conditions, drainage patterns, site constraints and potential opportunity areas. The area will encompass the Chevy Branch area as depicted in Figure 1of the RFP.

URS will review all existing sewer information within the area of flooding concern as shown in Figure 1 included with the original RFP. A review of the CCTV tapes or DVD's supplied by CCSE will be conducted to provide an assessment condition of the existing storm and sanitary sewers. Survey and as-built information supplied by the District (or others) will be reviewed and assessed along with the hydraulic models to determine the hydraulic gradient. The assessment will attempt to identify any physical constraints in the storm or sanitary sewer systems that would hinder or minimize the ability of the alternatives developed in Task 4 to provide flooding relief.

***Task 2: Field Investigations***

The scope of work for the field investigations includes subtasks for flow metering, public dye testing and residential home (private) dye testing. The flow monitoring will be to assist with model calibration for both the storm and sanitary sewer models. The dye testing effort along with the CCTV tape reviews in Task 1 will provide a detailed condition assessment of the local sewers within the study limits.

**Note: Subtasks 2b and 2c (Dye Testing) will be executed and invoiced only upon the approval of NEORSD.**

*Subtask 2A: Flow Monitoring*

URS field staff will install and maintain eight (8) total flow monitors at the sites selected by URS and the NEORSD including one (1) on General Motors property at or near the existing basin outfall. The flow monitors will remain in the same location for the duration of the project and will be installed in both storm (6) and sanitary (2) sewers within the area. The base period reflected in the task costs for the flow meters is for sixty (60) days. URS will also install one (1) rain gauge within the project site at a location agreed upon with NEORSD.

1. URS will verify through site reconnaissance if the locations are suitable for flow monitoring at the beginning of the project.

2. The flow monitors will be set to record data in 10-minute time increments. URS will calibrate the flow monitors prior to installation. Site information, depth and velocity measurements will be recorded on a Flow Monitoring Site Installation Form.

3. URS will also provide the data retrieval and data analysis for the flow monitors. Field crews will collect flow data and perform the required maintenance. Any maintenance and manual measurements will be recorded on a Flow Monitoring Maintenance Field Form.

4. At the conclusion of the monitoring period, URS will remove the flow monitors. The base monitoring period is a minimum of sixty (60) days from the day of installation. The monitoring period may be extended up to a maximum of 30 days for an additional cost if insufficient data is collected in the initial 30 day period upon the mutual agreement of URS and the NEORSD.

5. After the monitoring period is complete, a letter report with all flow data and precipitation data will be submitted to the NEORSD.

6. The report will include the overall flow analysis correlated with the recorded rain data.

7. Two (2) paper copies of the draft report will be submitted to the NEORSD within 30 days of removing the monitoring equipment and an electronic version of the report and flow data will also be sent.

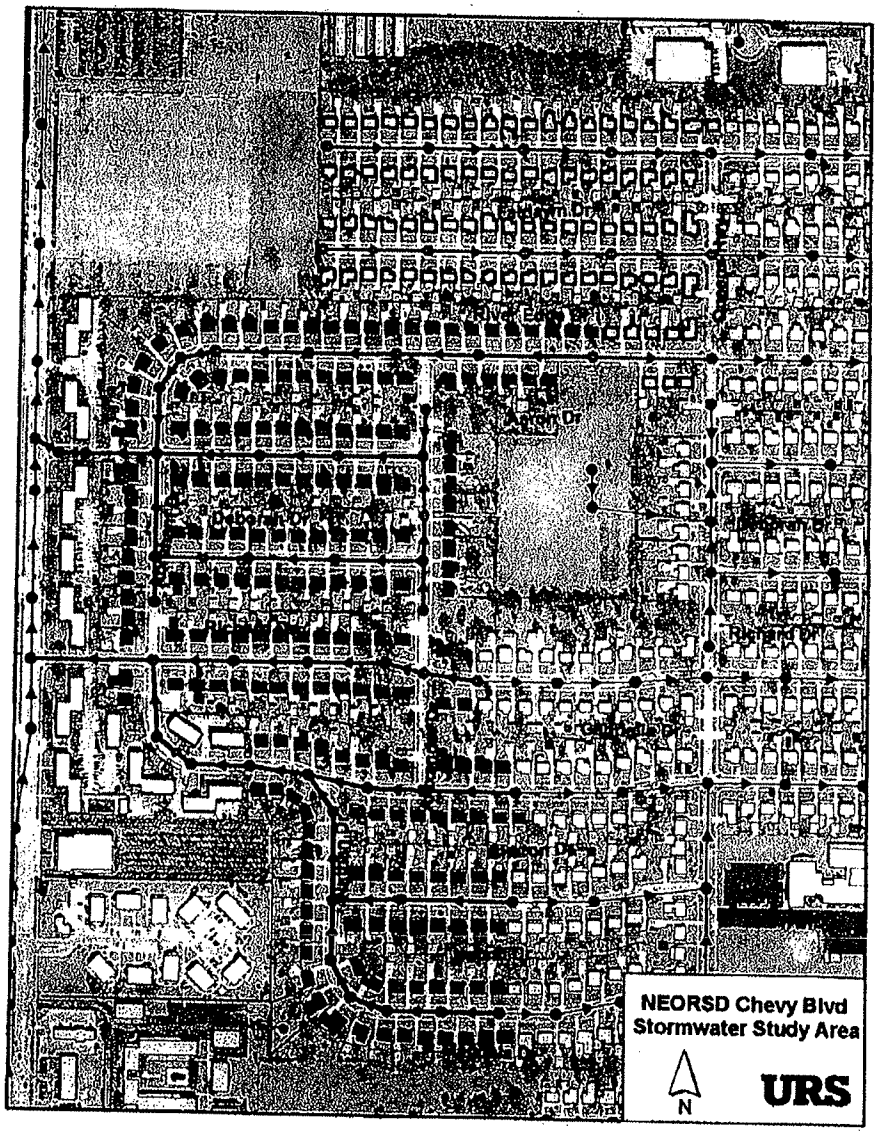


Figure 1

*Subtask 2B: Mainline Dye Testing - Rainfall Simulation of Public Property*
URS will conduct dyed water testing of public storm sewers in the Chevrolet Blvd. Study Area. Approximately 8800 linear feet of sanitary sewer will be investigated for leaks and cross connections by testing the storm sewers. Figure 1 with the area highlighted in blue shows the approximate limits of the dye testing.

1. Mainline storm sewers, which cross or run parallel to the sanitary sewer (Public Property), will be tested by inserting inflatable plugs, where possible, into the storm sewer, or through the use of sand bags for large diameter storm sewers, and filling the sewer with dyed water.

2. The sanitary sewer manholes in the vicinity of the storm sewers that are being tested will be observed for dye transfer. Once dye is observed, field crews will insert a URS owned camera into the sanitary sewer to identify the location and type of leak. URS will televise only the sewers that are found to have dye transfer and televise the entire sewer segment.

3. All data will be logged into a computer for data processing.

4. URS will complete a field table for each sewer tested to identify the testing information and results of each dye test. This information will be included in a field investigation final report summarizing results and recommendations for public inflow or infiltration.

*Subtask 2C: Residential House Dye Testing - Rainfall Simulation of Private Property*
All of the residential houses in the Chevrolet Blvd. Study Area will be dye tested. There are approximately a total of 206 houses located in this Sewershed identified by the mapping. Figure 1 with the area highlighted in blue shows the approximate limits of the dye testing.

1. URS uses a special manifold, developed specifically for this type of testing that tests multiple downspouts simultaneously, creating a more realistic rainfall simulation.

2. Water from a fire hydrant is added to as many downspouts as possible of the house being tested through the manifold. Dyed water is then added to the downspout. CCTV equipment will be used in the sanitary sewer to observe the house lateral for dye transfer. All data will be logged into a computer for data processing. Houses found to leak into the sanitary sewer will be identified and logged on a field form.

3. Field crews will distribute door hangars to all properties approximately 2 calendar days prior to the start of the testing. Crews will also notify the resident upon arrival that the test will commence and ask that the resident not use any water during the test (approximately 30 minutes).

4. Field crews will test a maximum of 4 downspouts for each residence/building, two in the front on each side of the house/building, and two in the rear on each side of the house/building. Any low lying areas in the front lawn or cracks in the driveway or sidewalk will also be tested. This testing provides a screening process to identify if houses are contributing I/I to the system. More detailed testing using a push camera or

lateral launch camera is required to locate the exact point of dye transfer and is not in this contract.

5. URS will complete a field form for each house to identify the testing information and results of each dye test. This information will be included in the final report.

6. URS will review and organize all information collected in the field. This data will be organized by type, such as mainline dye testing, residential dye testing and any CCTV inspection that was conducted.

7. The data gathered will be reviewed by URS to identify hydraulic and structural deficiencies, sources of inflow and infiltration, and identify short and long term rehabilitation projects and other actions to reduce the inflow and infiltration.

8. URS will provide alternatives to remove inflow and infiltration and eliminate hydraulic and structural deficiencies found during the testing and inspections.

***Task 3: Update Existing Hydraulic SWMM Model***

URS will obtain and review the most recent hydraulic model of the Chevrolet Branch of Big Creek as indicated in Task 1. WRCE will update the model to reflect current conditions based on as-built plans, Task 1 site visit and other available site information supplied by the District (or other stakeholders). No field survey work is anticipated to be performed with this Task Order. WRCE will re-calibrate the model based upon the Task 2A flow monitoring data. Sanitary sewers within Figure 1 limits (in blue) will be added to the system hydraulic model.

Focus will be placed on updating model hydrology and hydraulics in the model area upstream of the ODOT detention basin as shown. For this task, all relevant as-built plans and/or site survey information will be provided to URS in prior to beginning the update. A brief memo of proposed changes will be submitted to NEORSD prior to physical changes being made with the existing model.

***Task 4: Alternatives Evaluation***

Based upon the existing model and sewer system evaluation, a maximum of five (5) alternatives will be conceptualized working with District personnel and other stakeholders. As previously indicated all alternatives evaluated must provide flood relief to the existing sewer systems. The ultimate goal of the detention basins is to relieve flooding in this area.

Each alternative will include a schematic plan and will model the proposed basins to determine the overall system impacts and identify the required improvements. The schematic plan will be sufficient to identify proposed improvements. URS will assist other members of the project team in analyzing the function of existing stormwater management assets and will assist with the development of up to five stormwater management alternatives. Alternatives shall be evaluated to indicate the level of service (los) based upon 1, 2, 5, 10, 25, 50 and 100 year 24 hour storms. URS shall work with NEORSD to provide the appropriate los for each alternative as it may vary depending upon the cost benefit for each alternative. URS also understand that los may vary between sewers, basins and hydraulic gradients.

WRCE will use the updated hydraulic model (baseline conditions) to model up to five proposed alternatives. URS will present the impacts of these alternatives on the baseline conditions in a brief technical memorandum or memoranda.

Upon completion of the alternatives modeling an evaluation of the costs and impacts will be performed to identify the preferred alternatives. The costs shall include an evaluation of the construction cost and the O&M costs for each alternative. Based upon the improvements, los and other potential factors agreed upon by NEORSD, one (1) preferred alternative will be advanced for further study.

Once the preferred alternative is determined, conceptual plans will be fully developed for the selected alternative. The conceptual plans will include the following elements:

1. BASEMAP: URS will utilize available GIS information including the County Sanitary Engineer's mapping as the background basemap and other available sources. Existing utility information will be based upon NEORSD GIS info. No field surveying will be performed to develop the basemap.
2. PLANS: The plans will include drawings:
    a. Title Sheet
    b. Schematic Plan – Overall plan intended to show the general plan improvements
    c. Site Plan – Detailed plan showing improvements including proposed sewers manholes, catch basins, locations; preliminary sewer sizing, lengths grades; and basin volumes.
    d. Profiles – Preliminary Sewer profiles with design hydraulic gradient. Profiles will only identify major existing utilities based upon record information.
    e. Basin Detail - Show detention basin grading, outlets and spillways. Storm levels will also be included.
    f. Basin Cross Section
3. COST ESTIMATE: Class 4 cost estimate per AACE guidelines. Stated accuracy range = -20% to + 30%.
4. DESIGN NARRAITVE: Brief narrative detailing proposed improvements, design assumptions, design standards and modeling los performance.

Separately, an evaluation of the existing GM detention basin will be performed including a review of the system pumping components to assist the District in determining the requirements and viability of assuming maintenance/ownership on this basin. The evaluation of the basin will be included in the report in Task 5.

***Task 5: Summary Report***

URS will prepare a report detailing the alternatives evaluation including costs and updates to the hydraulic model. The model report will also include the baseline conditions and the impacts of the proposed stormwater management alternatives on the baseline conditions. The report will also evaluate additional improvements to remediate localized I/I identified in the field investigation. A draft and final report shall be submitted to the District for review and approval.

*Task 5: Meetings*
The scope of work assumes seven (7) project meetings (one every month for the project duration) and a final review meeting. Also, URS and WRCE will attend up to two (2) stakeholder meetings as required.

**Proposal Scope and Fee Assumptions**

- NEORSD/CITY OF PARMA shall provide access to water from hydrants including any necessary permits at no cost to URS.
- NEORSD/CITY OF PARMA shall provide URS staff access (consent) to enter upon public and private property as required for the performance of the Work.
- NEORSD/CITY OF PARMA will provide a Notification letter to include wording indicating URS survey personnel will require home access to accurately determine existing basement elevation(s) and be delivered prior to commencement of survey field work.
- NEORSD/CITY OF PARMA shall provide URS staff, at no cost to URS, all available information, reports, studies, testing results, maps and complaint records pertinent to the Project.
- The final deliverables include the following items:
  - Tech Memo #1 summarizing Tasks 1
  - Tech Memo #2 summarizing Task 2A
  - Tech Memo #3 summarizing Task 2B
  - Tech Memo #4 summarizing Task 2C
  - Tech Memo # 5 summarizing Task 3
  - Tech Memo #6 summarizing Task 4 including the concept plans
  - Draft and Final Report for Task 5
  - Baseline condition and alternative SWMM models
- Existing on-site survey information, GIS and AutoCAD files will be provided by NEORSD.

**URS Entity Responsible for Completing Work Authorization**

Mr. Joe Ferenczy of our URS Cleveland Office is the assigned Task Manager for the completion of the Scope of Services for this Task. Ms. Shirly Schluchter is the assigned Task Manager for WRCE, the SBE/WBE Firm performing the proposed scope for this Task Order. Jay Mosley of URS will be performing the QA/QC of the stormwater models and additional staff as shown on the Organization Chart in Attachment B included in this proposal has been tentatively assigned but may be subject to change.

## SCHEDULE

URS anticipates that this work scope can be completed within 210 calendar days (7 months) of the notice to proceed with the final completion in November 30, 2012. Below is the schedule on a task by task basis:

| | |
|---|---|
| Task 1 | 05/18/2012 to 06/04/2012 |
| Task 2A | 05/18/2012 to 07/20/2012 |
| Task 2B | 07/09/2012 to 08/17/2012 |
| Task 2C | 08/10/2012 to 10/12/2012 |
| Task 3 | 05/14/2012 to 08/03/2012 |
| Task 4 | 07/23/2012 to 09/10/2012 |
| Task 5 | 08/27/2012 to 11/30/2012 |
| Task 6 | 05/18/2012 to 11/30/2012 |

## SBE/WBE UTILIZATION

Water Resources and Costal Engineering (WRCE) is a NEORSD certified Small Business Enterprise and will perform the majority of the proposed modeling work scope. Based upon the scope of work, WRCE will be performing 26.6% of the Phase 1 work. Additionally, URS will attempt to utilize other field resources to achieve additional MBE and WBE goals.

## SCHEDULE OF FEE AND CHARGES

A detailed fee proposal is included as Attachment C. URS has proposed a total Time and Material Not-to-Exceed Fee of $141,801.14 in accordance with our General Engineering Services Contract to complete this Task Order request. Phase 2 if authorized at a later date would increase the project fees by $101,868.30 taking the total to $243,669.44.

NEORSD - GES Task #XX - Chevy Branch Detention Basin Study

## Schedule of Fee & Charges: URS

Date: 02/02/2012 - Revised 4/18/2012 - Revised 5/11/2012

Prepared by: Joe Ferenczy

| TASKS | Project Principal $62.00 per hour | | Task/Proj. Manager $54.00 per hour | | Senior Engineer/QA $48.00 per hour | | Project Engineer $36.00 per hour | | Jr. Engineer $28.00 per hour | | Field Manager $42.00 per hour | | Field Supervisor $33.00 per hour | | Field Technician $26.50 per hour | | Clerical/Administrative $22.00 per hour | | Total hours | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | hours | subtotal | hours | subtotal | hours | subtotal | hours | subtotal | hours | subtotal | hours | subtotal | hours | subtotal | hours | subtotal | hours | subtotal | | |
| ***Task 1 - Review Existing Information*** | | | | | | | | | | | | | | | | | | | | |
| Review Existing Information | | | | | | | | | | | | | | | | | | | | |
| Review Existing SWMM System Model | 4 | $248.00 | 8 | $432.00 | 0 | $0.00 | 8 | $280.00 | 4 | $112.00 | 0 | $0.00 | 2 | $66.00 | 0 | $0.00 | 4 | $88.00 | 30 | $1,226.00 |
| Review of CCTV Videotapes from CCSE | 0 | $0.00 | 4 | $216.00 | 0 | $0.00 | 4 | $140.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 8 | $356.00 |
| Review of Existing Plans & Modeling | 8 | $0.00 | 4 | $216.00 | 0 | $0.00 | 4 | $140.00 | 16 | $448.00 | 0 | $0.00 | 2 | $66.00 | 0 | $0.00 | 0 | $0.00 | 26 | $870.00 |
| Site Visit | 0 | $0.00 | 8 | $432.00 | 8 | $384.00 | 4 | $140.00 | 4 | $112.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 24 | $1,068.00 |
| Hours Subtotal | 4 | | 32 | | 8 | | 28 | | 24 | | 0 | $0.00 | 4 | $132.00 | 0 | $0.00 | 0 | $0.00 | 24 | $1,012.00 |
| | | | | | | | | | | | 4 | | 8 | | 0 | | 4 | Subtotal: | 112 | $4,532.00 |
| ***Task 2 - Field Investigation*** | | | | | | | | | | | | | | | | | | | | |
| Task 2A - Flow Monitoring | 0 | $0.00 | 8 | $432.00 | 0 | $0.00 | 4 | $140.00 | 10 | $280.00 | 12 | $504.00 | 90 | $2,970.00 | 130 | $3,315.00 | 4 | $88.00 | 258 | $7,729.00 |
| Hours Subtotal | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | Subtotal: | | |
| ***Task 3 - Update Existing Hydraulic Model*** | | | | | | | | | | | | | | | | | | | | |
| Update Hydrology Model and Review DA | 0 | $0.00 | 4 | $216.00 | 4 | $192.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 8 | $408.00 |
| Update System Hydraulic components based on As-Built Plans | 0 | $0.00 | 4 | $216.00 | 4 | $192.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 8 | $408.00 |
| Add sanitary sewers in model (Deborah/Gebertella area only) | 0 | $0.00 | 4 | $216.00 | 4 | $192.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 8 | $408.00 |
| Model calibration from flow meter data (Task 2A) | 0 | $0.00 | 4 | $216.00 | 4 | $192.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 8 | $408.00 |
| Hours Subtotal | 0 | | 16 | | 16 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | Subtotal: | 32 | $1,632.00 |
| ***Task 4 - Alternatives Evaluation*** | | | | | | | | | | | | | | | | | | | | |
| Develop Alternatives (5 maximum) | 0 | $0.00 | 16 | $864.00 | 8 | $384.00 | 24 | $840.00 | 24 | $672.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 72 | $2,760.00 |
| Model Alternatives (5 maximum) | 0 | $0.00 | 8 | $432.00 | 8 | $384.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 16 | $816.00 |
| Construction and O&M Costs | 0 | $0.00 | 12 | $648.00 | 0 | $0.00 | 16 | $560.00 | 4 | $112.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 32 | $1,320.00 |
| Select Preferred Alternative | 0 | $0.00 | 8 | $432.00 | 2 | $96.00 | 16 | $560.00 | 4 | $112.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 30 | $1,200.00 |
| Prepare Preliminary Design Drawings for Preferred Alternative | 0 | $0.00 | 8 | $432.00 | 2 | $96.00 | 24 | $840.00 | 40 | $1,120.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 74 | $2,488.00 |
| Hours Subtotal | 0 | | 52 | | 20 | | 80 | | 72 | | 0 | | 0 | | 0 | | 0 | Subtotal: | 224 | $8,584.00 |
| ***Task 5 - Summary Report*** | | | | | | | | | | | | | | | | | | | | |
| Prepare Draft Report | 0 | $0.00 | 4 | $216.00 | 0 | $0.00 | 40 | $1,400.00 | 16 | $448.00 | 2 | $84.00 | 8 | $264.00 | 8 | $204.00 | 4 | $88.00 | 82 | $2,704.00 |
| Prepare Final Report | 2 | $124.00 | 4 | $216.00 | 4 | $192.00 | 8 | $280.00 | 8 | $224.00 | 0 | $0.00 | 2 | $66.00 | 2 | $51.00 | 2 | $44.00 | 32 | $1,197.00 |
| Hours Subtotal | 2 | | 8 | | 4 | | 48 | | 24 | | 2 | | 10 | | 10 | | 6 | Subtotal: | 114 | $3,901.00 |
| ***Task 6 - Meetings*** | | | | | | | | | | | | | | | | | | | | |
| Stakeholder Meetings (2) | 2 | $124.00 | 8 | $432.00 | 4 | $192.00 | 4 | $140.00 | 0 | $0.00 | 4 | $168.00 | 0 | $0.00 | 0 | $0.00 | 2 | $44.00 | 24 | $1,100.00 |
| Project Meetings (7 total - 1 per mo.) | 0 | $0.00 | 28 | $1,512.00 | 12 | $576.00 | 8 | $280.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 0 | $0.00 | 2 | $44.00 | 50 | $2,412.00 |
| Hours Subtotal | 2 | | 36 | | 16 | | 12 | | 0 | | 4 | | 0 | | 0 | | 4 | Subtotal: | 74 | $3,512.00 |
| Phase 1 Total | 16 | $496.00 | 296 | $10,206.00 | 136 | $3,072.00 | 240 | $6,580.00 | 250 | $3,640.00 | 32 | $924.00 | 26 | $1,584.00 | 150 | $3,570.00 | 18 | $396.00 | 614 | $29,890.00 |

| Other Direct Costs | Unit Cost | Units | Quantity | Total |
|---|---|---|---|---|
| Mileage | $0.50 | Mileage | 400 | $200.00 |
| Parking | $5.00 | Each | 4 | $20.00 |
| Reproduction | $1.00 | Page | 540 | $540.00 |
| Flow Meter Rental | $600.00 | Rental/Month | 16 | $9,600.00 |
| Phase 1 Trucks & Field Equipment | $50.00 | Day | 20 | $1,000.00 |
| Phase 1 Subtotal: | | | | $11,360.00 |

Note: Phase 2: Subtasks 2b and 2c (Dye Testing) will be executed and invoiced only on the NEORSD Project Manager's direction.

| | |
|---|---|
| Phase 1 Direct Labor Total | $29,890.00 |
| Labor Multiplier | 3.10 |
| Phase 1 Loaded Labor Total | $92,659.00 |
| Phase 1 Other Direct Costs | $11,360.00 |
| Phase 1 Total URS Fee | $104,019.00 |
| WRCE Fee | $37,782.14 |
| SBE % | 26.5% |
| Total Phase 1 Task Order Fee | $141,801.14 |
| SBE % | 15.5% |
| Total Task Order Fee | $243,869.44 |